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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,647	10/05/2005	Stefan Franzl	P05,0256	1664

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SCHIFF HARDIN, LLP
PATENT DEPARTMENT
6600 SEARS TOWER
CHICAGO, IL 60606-6473

EXAMINER	
WONG, JOSEPH S	
ART UNIT	PAPER NUMBER
2852	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/542,647	FRANZL ET AL.	
	Examiner	Art Unit	
	JOSEPH S. WONG	2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 December 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *21-51* is/are pending in the application.

4a) Of the above claim(s) *33-46 and 48-51* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *21-32 and 47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 July 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7/19/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Claims 33-46 and 48-51 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 12/8/07.

Drawings

The drawings are objected to because Figs. 2-4 do not appear to be in English. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities: In the substitute specification (page 9, lines 8-29), the term "t(Excavator)" (four occurrences) is used with respect to fig. 4, however no such term is found in fig. 4. It is not clear if "t(Excavator)" is equivalent to "tBagger" of fig. 4.

Furthermore, "tHall" of fig. 4 is not described in the specification. For the sake of clarity, applicant is advised to sufficiently describe the terms "t(Excavator)", "tBagger", and "tHall".

Appropriate correction is required.

Claim Objections

Claim 31 is objected to because of the following informalities: Claim 31 is dependent upon cancelled claim 13. It appears that claim 31 was intended to be dependent upon claim 30, and for the purposes of examination will be treated as such. Applicant is requested to either confirm or correct the dependency of claim 31. Appropriate correction and/or clarification is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 21-32 and 47 are rejected under 35 U.S.C. 102(b) as being anticipated by Miyamura et al. (US 2001/0053293).

With respect to claim 21, Miyamura et al. discloses a method for control of a point in time of a measurement of toner concentration in a developer mixture comprising toner and carrier, comprising the steps of: mixing the developer mixture by a bucket roller provided with buckets situated in a mixing device (fig. 2, items 56 and/or 57); arranging a toner concentration sensor for measurement of the toner concentration in the developer mixture adjacent to the bucket roller (fig. 8, item 58); arranging magnet bars on the buckets of the bucket roller and interrupting (fig. 4, item 61) the magnet bars when they are in a region adjacent to the toner concentration sensor except for one of the magnet bars which is uninterrupted (fig. 4, item 63) when it is in the region adjacent to the toner concentration sensor; with the toner concentration sensor emitting a sensor signal that upon passage of the bucket with the uninterrupted magnet bar (63), exhibits a first pulse-shaped spike with a larger amplitude caused by the uninterrupted magnet bar (fig. 5, “scraping range”), exhibits further pulse shaped spikes of smaller amplitude upon passage of the further buckets with the interrupted magnet bars (fig. 5); determining a point in time of occurrence of the first pulse-shaped spike in the sensor signal (fig. 5, "scraping range"); and implementing a measurement of the toner concentration in a measurement window that lies after occurrence of the first pulse shaped spike of the sensor signal in a region of the sensor signal that lies between the spikes caused by the buckets (fig. 5, “concentration measurement range”).

With respect to claim 22, Miyamura et al. further disclose wherein a temporal position of the pulse-shaped spike is indicated when the sensor signal has the largest rise (fig. 5, "scraping range").

With respect to claim 23, Miyamura et al. further disclose wherein to recorded a signal curve of the sensor signal: successive individual measurements of the sensor signal are implemented at the same time interval (figs. 5-7, "concentration measurement range"), a difference of successive measurement values acquired via the individual measurements is generated, and a highest determined difference value indicates a position of the pulse-shaped spike (as shown at least in figs 5-7 and discussed at least in paragraphs 63, 69-74, and/or 79).

With respect to claim 24, Miyamura et al. further disclose wherein the temporal position of the pulse shaped spikes is indicated when a curve generated from the difference values exceeds a predetermined threshold (as shown at least in figs. 5-7 by "T/Cref").

With respect to claim 25, Miyamura et al. further disclose wherein a temporal position of the pulse-shaped spikes is indicated when the pulse-shaped spikes of the sensor signal exceed a predetermined threshold or reach a highest value (as shown at least in figs. 5-7 by "T/Cref").

With respect to claim 26, Miyamura et al. further disclose wherein a temporal position of the pulse-shaped spikes is indicated when a combination rise/amplitude exceeds a threshold (as shown at least in figs. 5-7 by "T/Cref").

With respect to claim 27, Miyamura et al. further disclose wherein upon occurrence of the first pulse-shaped spike (fig. 5, "scraping range"), a measurement window (fig. 5, "concentration measurement range") is placed after a time period calculated from a temporal position of the first pulse-shaped spike(as shown at least in figs. 5-7by the "concentration measurement range" and/or the "measure delay time").

With respect to claim 28, Miyamura et al. further disclose wherein a measurement window (fig. 5, "concentration measurement range") is placed such that, after passage of the bucket with the uninterrupted magnet bar (fig. 4, item 63), at least one further bucket (61) passes by the toner concentration sensor (58).

With respect to claim 29, Miyamura et al. further disclose wherein a measurement window is opened independent of a sensor signal curve for the case that no pulse-shaped spike has occurred in the sensor signal during a rotation of the bucket roller (as discussed at least at least in paragraphs 58 and/or 77-82).

With respect to claim 30, Miyamura et al. further disclose wherein an error counter is incremented when no pulse-shaped spike is determined in the sensor signal during a revolution of the bucket roller, and an error counter is decremented again when a pulse-shaped spike occurs again in a next revolution (as discussed at least in paragraphs 77-82).

With respect to claim 31, Miyamura et al. further disclose wherein an error signal is emitted when a counter value of the error counter exceeds a predetermined counter value (as discussed at least in paragraphs 58 and/or 77-82).

With respect to claim 32, Miyamura et al. further disclose wherein the mixing device is arranged in a developer station (fig. 2) for an electrophotographic printer or copier (fig. 1).

With respect to claim 47, Miyamura et al. disclose an arrangement for control of a point in time of a measurement of a toner concentration in a developer mixture comprising toner and carrier, comprising: a bucket roller arranged in a mixing device for the developer mixture, the developer mixture being stirred with buckets of the bucket roller (fig. 2, items 56 and/or 57); a toner concentration sensor (58) arranged adjacent to the bucket roller for measurement of the toner concentration in the developer mixture; identical bars being provided on buckets of the bucket roller, respective magnetic bars in each bucket being interrupted (61) when they are in a region adjacent to the toner concentration sensor except for one magnetic bar which it is uninterrupted (63) in said region; and the toner concentration sensor emitting a sensor signal indicating the toner concentration, the sensor signal exhibiting, upon passage of the bucket with the uninterrupted magnet bar, a first pulse-shaped spike (fig. 5, "scraping range") from which a measurement window is derived (fig. 5, "concentration measurement range") is derived in which the toner concentration is measured.

Prior Art of Record

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tanaka et al. (US 5530530), Hatori (US 2002/0159781), and Yokoyama (US 5006893) disclose similar toner concentration measurement arrangements.

Remarks

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph S. Wong whose telephone number is (571)272-8457. The examiner can normally be reached on Monday - Friday 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on (571)272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/David M Gray/
Supervisory Patent Examiner, Art Unit 2852

JSW

Joseph Wong
Patent Examiner
Art Unit 2852
3/11/08